Summary of Material to Know from Chapter 2

You are expected to know each of the topics below and to be able to expand on each.

1. What services are provided by an operating system?

   - What does an OS provide to a user (should be able to list all categories)
   - User's interface to an OS - the command line interface and the GUI

2. What are system calls and how are they implemented?

   - A program's interface to the OS (i.e., an API)
   - Examples of system calls in Linux (Unix)
   - Categories of system calls
   - Implementation of system calls
   - The different methods of passing parameters in system calls

3. What are system programs and how do they differ from system calls?

   - Examples in Linux
   - Services provided by system programs: categories and specific services

4. What are linkers and loaders - what do they do and how are they used?

   - What a linker does
   - What a loader does
   - Dynamic versus static linking
   - Relocation and relocatable code
   - The stages of program building

5. How are operating systems organized? What is their structure?

   - Monolithic code
   - Layered code
   - Micro-kernels
   - Modular code
   - Examples: Linux, Darwin